

## **BRIDGING THE SKILLS GAP THROUGH VOCATIONAL EDUCATION**

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### **ABSTRACT**

India has the largest pool of human resources in the world. Yet it faces this ironical situation where on one hand, the unemployment rate amongst the youth population is on the rise, on the other hand, the industry is facing an acute shortage of skilled workers. This indicates a mismatch between the current output of our education system and the requirements of the industry. Our education system is churning out graduates having paper qualifications but no employable qualities or skills. The paper analyses the current scenario of unemployment in the country with respect to the academic outcome of our education institutes. It identifies the skills supply gaps with respect to the demands of the industry. It further explores the significance of vocational education to improve the employability skills of the youth. The paper concludes with emphasis on the need to reform the current vocational education system to bridge the skills gap in the Indian youth and suggests certain reforms in vocational education to plug this gap.

**KEYWORDS:** Employability, Skills Gap, Vocational Education

### **INTRODUCTION**

Vocational Education and Training (VET) aims at developing specific skills through diversified courses to meet the skilled manpower requirements of the industry. It also aims at developing entrepreneurship skills to enable a person to start one's own enterprise. In the recent past, with the opening up of the world economy, vocational education and training has assumed importance and is being increasingly adopted by the developed countries. In India, vocational training is still a neglected sector. India has a huge workforce but a majority of this workforce is uneducated and without any kind of vocational training. The present day rapid changes in technology require that the workforce should be able to learn new skills to adapt themselves to these changes. This is extremely essential for the sustained development and growth of Indian economy. In such a scenario, vocational education and training assumes importance. This paper analyses the current unemployment scenario in India. It delves into the main reasons behind the increasing rates of unemployment. It also analyses the skills gap that exists between the demands of the industry and the outputs of our educational institutes. The importance of vocational education and training to bridge this gap is highlighted and certain reforms to rebuild and strengthen it are suggested.

### **UNEMPLOYMENT IN INDIA**

The rising rates of unemployment have been a matter of grave concern in India. Employment generation has been deeply affected by the global economic slowdown and the rather sluggish expansion of business enterprises. This trend of rising unemployment rate is expected to further rise in the coming two years (ILO, 2013). While the unemployment rate was 3.5% in 2011, it rose to 3.6% in 2012, it further rose to 3.7% in 2013 and is expected to be 3.8% in 2014 (ILO, 2014).

According to the latest census report released in July, 2014 the unemployment rate in the age group of 25-29 years was approximately 18 per cent while in the age group of 15-24 years it was more than 20 per cent. Thus there was a staggeringly huge army of 46.9 million of Indian youth who were in search of jobs in 2011 as compared to 33.5 million in 2001. The rate of unemployment in India as shown in the Table 1 has been witnessing an upward trend.

**Table 1: Rate of Unemployment among the Youth (15-29 Years of Age)**

	1999-2000	2004-05	2009-10	2011-12
<b>Rural Male</b>	5.1	5.2	5.5	6.1
<b>Rural Female</b>	3.7	7.0	6.5	7.8
<b>Urban Male</b>	11.5	10.0	7.9	8.9
<b>Urban Female</b>	16.6	19.9	17.2	15.6

**Source:** National Sample Survey Report No.554: Employment and Unemployment Situation in India, 2011-12

The figures in Table 1 show that the youth unemployment rates are quite high amongst all the sections of the society.

## **CURRENT EMPLOYMENT SCENARIO WITH RESPECT TO THE ACADEMIC OUTCOME**

There has been a quantum expansion in the Indian education system and today it ranks third in the world, next only to the USA and China. The number of universities and colleges in India has registered a colossal increase of 34 times and 74 times respectively since 1950 (Deloitte, 2013). As per the statistics provided by the Ministry of Human Resource Development, Government of India, there are 677 universities and 37, 204 colleges in India as on 31<sup>st</sup>, March, 2013.

This increase in number of universities and colleges implies that the Indian youth, today have increased and better than before opportunities of availing education and hence become employable. This in turn is expected to provide greater employment opportunities to the youth.

But instead, there has been an alarming rise in the number of unemployed and under-employed graduates. According to an Indian Labour Ministry report released in November, 2013, one in three graduates up to the age of 29 is unemployed. Thus, with increase in education level, the unemployment rate is also increasing for all age groups (Labour Bureau, 2013).

India is experiencing a youth bulge. Nearly two-thirds of Indians are under 35; half are under 25. By 2020, India will be the youngest country in the world, with a median age of 29 years. India's large youth population, often called a "demographic dividend," could potentially make India the biggest consumer market and the biggest labour force in the world (The New York Times, 2014). In case this youth bulge is not provided with proper employment opportunities that could raise their levels of living, India's youthful demographic dividend could turn into a demographic liability and could result in political and economic instability.

## **CONSEQUENCES OF UNEMPLOYMENT**

Unemployment can have a very negative psychological impact on the youth. "Unemployment leads to increased instability in the unemployed and lowers their morale" (Eisenberg and Lazarsfeld, 1938). Unemployment causes depression, frustration and fretfulness with one's life. It also lowers one's self esteem and induces a feeling of hopelessness, despair and worthlessness. The financial strain caused by the inability to meet the daily basic needs cause mental stress. This can have a destructive impact on the physical and mental health of the youth. The unemployment

situation imposes restrictions on individuals' ability to exercise agency, which results in the lowering of mental well-being (Fryer and Payne, 1984 and Fryer, 1986).

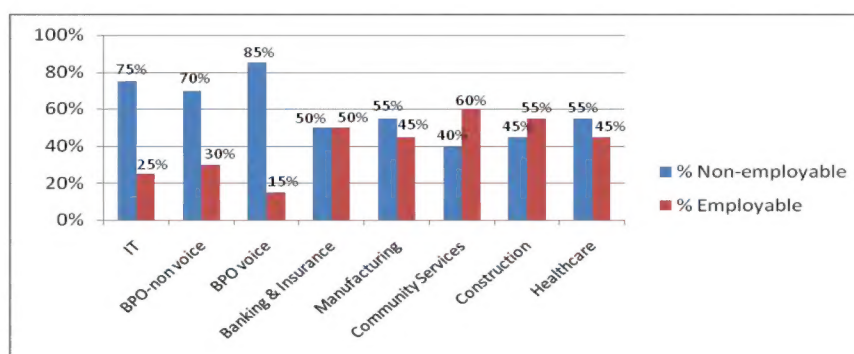
Unemployment thus hampers the economic growth of the nation and also leads to a number of social problems. It causes increase in cases of theft, violence and other criminal activities. Thus there is a dire need to stem the growing unemployment in the country to protect the youth from the ill consequences of unemployment.

## ANALYSIS OF SKILLS DEMAND-SUPPLY GAPS

India has a whopping manpower of 1.2437 billion, yet the irony is that the industry is facing a shortage of skilled workers and the number of unemployed is consistently growing. Thus while on one hand, need to contain the unemployment rate is being stressed; on the other hand, the industry is facing a shortage of skilled workers. In India, around three million students graduate each year. But only 10% of general graduates and 25% of engineers and MBAs are employable (National Employability Report, 2013).

“Employability refers to a person's capability for gaining and maintaining employment” (Hillage and Pollard, 1998). “For individuals, employability depends on the knowledge, skills and abilities (KSAs) they possess, the way they present those assets to employers, and the context (e.g. personal circumstances and labour market environment) within which they seek work” (Hind and Moss, 2011).

Among some disciplines the skills gap appears to be staggering – 75% of IT graduates are deemed ‘unemployable’, 55% in manufacturing and 50% in banking and insurance according to Higher Education in India: Vision 2030, a report produced by international consultants Ernst and Young for the Federation of Indian Chambers of Commerce and Industry. This has sparked growing concern about the mismatch between universities and the needs of the job market.



**Source:** Aspiring Minds report: National employability report: Graduates 2013, National Skill Development Agency

**Figure 1: Percentage of Employable and Non-Employable Graduates for Different Industries**

Thus, India faces a paradoxical situation where on one hand, the unemployment rate is on the rise and the youth are finding hard to find suitable jobs, on the other hand, the industry is facing an acute shortage of skilled workers and the employers are finding it hard to locate suitable candidates with the requisite skills. According to an FICCI-World Bank employer satisfaction survey carried out in 2009, approximately 64% of the employers are not satisfied with the quality of the skills of the engineering graduates. According to Kiran Karnik, former President of NASSCOM, the selection ratio is barely 0.08%. These skill gaps are rendering the youth unemployable.

Thus poor employment rates can be attributed to the mismatch between the requirements of the industry and the academic outcome of our education system. The system is still producing graduates in subjects that the job market no longer requires. The current education system has not been able to equip the students with the skills that could increase their employability and make them acceptable to the industry. Thus India today faces a problem of un-employability rather than that of unemployment.

**Table 2: Projected Incremental Manpower Requirements (2008-2022)**

Sector	Incremental HR Requirement Till 2022 (in Millions)
Auto and Auto components	35
Building and construction	33
Textile and clothing	26.2
Organized Retail	17.3
Real Estate Services	14
IT and IT-BPM	5.3
Gems and Jewellery	4.7
Leather and Leather goods	4.5
BFSI	4.2
Furniture and Furnishings	3.4

**Sources:** IMAcS reports 'Human Resource and Skill Gap Requirements (2022)', 2008; Aon Hewitt report 'Talent Projections and Skill Gap Analysis for the Infrastructure Sector (2022)', 2011, National Skill Development Corporation (NSDC).

As depicted in Table 2, there would be a significant increase in the manpower requirements in different sectors by 2022. It is estimated that 50-70 million jobs will be created in India in the next five years and 75% to 90% of these additional avenues would require some kind of vocational training (FICCI and Ernst & Young, 2013).

Thus vocational training is now seen as vital for plugging the skills gap and improving employability of the youth.

## CURRENT STATUS OF VOCATIONAL EDUCATION IN INDIA

In India vocational education is primarily provided at 2 levels:

- **School Level Vocational Education:** At school level, with the objective of providing employable skills to the students, the Ministry of Human Resource Development (MHRD) commenced a scheme called 'Vocationalization of Secondary Education' in 1988. Under this scheme, vocational education is provided as two year courses in 150 different vocational subjects in classes XI and XII. According to MHRD in 2010-11, the scheme was commenced in 9619 schools with a capacity for 1 million students. But less than 5% of students are enrolled in this scheme (Planning Commission, 2011).
- **Post School Vocational Education and Training:** Post school vocational education is provided by Polytechnics which impart diploma programs in different vocational and engineering disciplines. Vocational education in India lies under the jurisdiction of the Directorate General of Employment and Training (DGET) which runs two schemes: the Craftsmen Training Scheme (CTS), and the Apprenticeship Training Scheme (ATS). These schemes offer courses of 1 to 2 year duration. CTS courses are offered at Industrial Training Institutes (ITIs) run by the government and at the privately managed Industrial Training Centres (ITCs). The ATC courses are offered at the

work place in various public and private industry firms. Currently there are about 2140 Government ITIs and 6166 ITCs providing training in 114 subjects (DGET, 2012).

In addition, some other schemes have been launched by the government to promote vocational education. 'Modular Employable Skills (MES)' is one such scheme launched by the Labour Ministry to provide short term module based vocational training using both government and private infrastructure. MES was designed keeping in mind the training needs of the large informal sector (Planning Commission, 2012).

Another ambitious scheme named as 'National Vocational Education Qualifications Framework (NVEQF)' was launched in September 2012. 'This scheme provides for multiple pathways both within vocational education and between general and vocational education to link one level of learning to another higher level and enable learners to progress to higher levels from any starting point in the education and/or skill system' (MHRD, 2012).

Besides these, a number of other ministries and government bodies also provide vocational training in their specific sectors including Ministry of Agriculture, Rural Development, Health, Textiles, and IT etc.

## ISSUES RELATED TO VOCATIONAL TRAINING

Vocational education in India has not been able to bear the expected fruits inspite of some ambitious schemes launched by the successive governments. It has neither been able to improve the youth employability nor has it been able to restrict the unemployment rates. A number of issues continue to plague the successful implementation of vocational education and training in India.

At the school level, under the 'Vocationalisation of Education' scheme of the MHRD, the enrollment is less than 5% against a capacity of 1 million. This is despite very low percentage of people possessing marketable skills. Only about 19.6% of urban males and 11.2% of female workers possess marketable skills. In rural areas, the percentage is even lower. Only around 10% of males and 6.3% of female workers in the rural areas possess these skills. These figures are far higher in developed as well as in some of the developing countries.

Thus, in India the vocational courses are characterized by low enrollment and participation of the youth. On an average, about 95% of the world youth in the age group of 15 - 35 years undergo some kind of skill based training out of a choice of more than 3000 vocational courses. On the other hand, in India, only 2-3% of the youth in the age group of 15-29 years undergo formal vocational training in one out of the only 170 trades in which training is imparted. Thus, compared to many developed countries, India is far behind in introducing new and innovative trades in VET.

The low adoption rates of vocational education are also attributed to the general misperceptions among the Indian people about the payoffs of vocational education. Lack of awareness about it makes the people consider vocational education to be somewhat inferior and less prestigious than the traditional educational courses and degrees.

Vocational education courses are often associated with low profile jobs and a dead-end track career. The general belief is that since vocational education is oriented towards providing only specific skills, it generally leads to career stagnation as due to rapid changes in technology, there is a greater probability of the acquired skills becoming obsolete in the near future, rendering the workers jobless. Moreover, there is absence of lateral and vertical mobility to other degree programs. Hence, vocational education is not considered as an attractive alternate career option for starting one's career.

In India, there are 5100 Industrial Training Institutes (ITIs) and around 6000 Vocation Education and Training (VETs) institutes against the neighboring China where there are about 500,000 senior higher secondary vocational schools (Cedefop, 2009). In fact, success of China in the global market has been attributed to its successful implementation of vocational education which has given it an advantage of availability of vast pool of skilled workforce.

The percentage employment of the people with some kind of vocational training is rather low. This indicates the differences in the type of skills being imparted in the VETs and the requirements of the industry. This is further attributed to the absence of industry linkages and its involvement in designing the curriculum of these courses. Thus outdated skills continue to be imparted for out of demand streams. This results in non acceptance of these graduates by the industry.

At present, there is no standardization and uniformity in the vocational education being imparted across the country. There is neither any accreditation system for quality standardization and assurance; nor there is any competent certification authority for the validation of the courses being conducted by the different institutes (FICCI, 2006). This has resulted in low quality of education at these institutes. In the absence of any clear cut policy of the government on vocational education, its implementation and expansion is further affected by the paucity of funds allocated to it. Thus the vocational education training institutes lack proper infrastructure. Problems such as old buildings, outdated equipment and machines as well as inadequate reading material continue to inflict these institutes.

Non availability of qualified staff is another major issue that has affected the successful implementation of vocational education in India. At present there is no provision for imparting training to the staff to keep them updated with the latest skills and technology. Hence they continue to teach skills which are no longer required by the industry.

## **REFORMING VOCATIONAL EDUCATION TO BRIDGE THE SKILLS GAP**

The skills demand-supply gap is hampering India's progress. This gap can be plugged through vocational education and training. It has been estimated that India can increase its revenue by \$133-315 billion and add 10-24 million jobs (direct and indirect) by the year 2020, if it is able to dedicatedly work on ensuring that the workforce is properly equipped with skills and talent to fulfill the gap in talent requirements globally (All India Management Association, 2003).

But currently vocational education and training is a neglected sector in India. It is inflicted with a large number of issues and problems as already discussed in the previous section. Recognizing its importance, the Indian government has recently taken some steps for the expansion of vocational education. It has recently announced setting up of 1600 new ITI's and Polytechnics and 50,000 new Skill Development Centers. But mere expansion would not help India achieve its goal of bridging the mammoth skill gap of 244 million by 2022. Revolutionary steps are needed to reform Vocational Education and Training in order to bridge the skills gap and boost India's socio-economic growth. This section suggests certain policy recommendations that can bring about the desired reforms in this sector.

To address the issue of low enrollment in the vocational and training courses, efforts are needed to popularize them through proper counseling at the school level. For this purpose, Vocational Guidance and Counseling cells may be set up in the schools. These cells should motivate the students to take up skill based training courses by making them aware of the relevance of such courses and the corresponding job and self employment opportunities. These cells should help the students in realizing their potential and in selecting an appropriate vocational career according to their potential.

Vocational education courses need to be streamlined by setting up a separate board for these courses. All the vocational courses may be brought under its preview. The board can be assigned the task of identification of precise skill requirements for the growth of industry acceptable workforce. New courses may then be designed by the board as per these requirements. It should also be able to anticipate the skills that would be needed in the future. The board could be made responsible for the curriculum design and its continuous updation as per the changing market requirements. This curriculum should be uniformly implemented in the entire VETs’.

A Vocational University could be set up and all the VETs may be affiliated to it. This University could be endowed with the power of awarding degrees and diplomas in vocational courses. This would ensure more recognition to these courses. The university could make provision for lateral entry into the conventional courses along with the vocational courses. The German dual model of vocational education based on this concept has been very successful and is being adopted by a number of developed countries (Euler, 2013).

A National framework policy on vocational education may be established to provide equivalency of the vocational degrees, diplomas and certifications to allow for vertical mobility to higher degree programs. This would allow the students to enhance their educational qualifications for improving their career prospects.

A very holistic approach needs to be adopted in imparting of vocational education and research. The skills training should also encompass development of core skills like numerical ability, communication skills, problem solving skills etc. which form the foundation for life-long learning and also aid the workers in adapting to changes. There should also be a provision for development of higher level skills like technical and professional skills that can help the workers to explore other jobs or occupations with better returns.

A National Vocational Assessment and Accreditation Council on lines of the existing National Council for Assessment and Accreditation Council (NAAC) could be established for quality auditing of various vocational education and training institutes and to accredit courses offered by them. This would help in improving the quality standards of these institutes.

It is very pertinent to ensure increased participation of the industry in the vocational education setup of the country. This is important for the successful growth of vocational education. The industry needs to be involved in the governance and funding of the VETs. Further, curriculum design of the courses is another area where the involvement of the industry can enhance the credibility and quality of these courses. The corporate employers are well versed with the requirements of the industry and can thus influence the enhancement of these skills in education (Taylor, 1998). The corporate sector can also be encouraged to invest in vocational education by setting up high-end training institutes and providing enhanced skills. The prospective employers can provide in-house training to the students so that they are industry-ready when they complete their course and can be immediately employed. The Government of India can set up joint ventures with the private sector for such purposes. Incentives should be provided to the industry for investing in vocational education. Facility for easy bank loans at reasonable rates of interest should be provided to the students who wish to start their own enterprises after the completion of their courses.

Vocational Teacher Training Centers can be established for regular training of the teachers involved in vocational training so that they remain updated with the latest skills and technology changes. The training should include giving industrial exposure to the teachers so that they can experience the changing requirements of the economy. Such training

courses for the faculty should be made compulsory. To attract the best talent in this sector, incentives and better pay packages should be offered to the teachers.

## CONCLUSIONS

At present India, in contrast to the other countries, enjoys a 'demographic dividend' where in a majority of the Indian population will be in the workable age by 2020. Thus, India is set to have the largest pool of human resources by 2020. India also faces the challenge of equipping this enormous pool of workers with requisite skills to make them employable. Hence, to reap the benefits of the 'demographic dividend', revolutionary steps need to be taken to reform the education system with emphasis on practical hands on training that can meet the skills demands of the industry. The Indian educators, learners, administrator and the policy makers need to comprehend the future requirements and must embrace vocational education to bridge the skills gap between the current academic outcome and the requirements of the industry. This is vital for sustained development and growth of the Indian economy. The present vocational education system needs to be strengthened by introducing reforms that can help India achieve its goal of increased employment opportunities for its youth. The 'Make in India' campaign recently launched by the Prime Minister Narendra Modi cannot be successfully implemented until the skill gap is plugged and the country has a skilled workforce that can fulfill the needs of the industry. The study suggests reforms that can make vocational education more effective and productive in meeting the current and future skill needs of the industry.

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